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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/519,031	03/03/2000	Hitoshi Hashimoto	P/3541-4	6484

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Ostrolenk Faber Gerb & Soffen LLP
1180 Avenue of the Americas
New York, NY 10036-8403

EXAMINER
YE, LIN

ART UNIT	PAPER NUMBER
2612	12

DATE MAILED: 05/24/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 09/519,031	Applicant(s) HASHIMOTO, HITOSHI
	Examiner Lin Ye	Art Unit 2612

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *25 February 2004*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-12* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☒ Claim(s) *2-6,8,9,11 and 12* is/are allowed.

6)☒ Claim(s) *1,7 and 10* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *05 June 2000* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Response to Arguments

1. Applicant's arguments with respect to claims 1 and 7 filed on 2/25/04 have been considered but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claim 10 recites the limitation "any one of said specific position" in lines 10. There is insufficient antecedent basis for this limitation in the claim.

For art rejection purpose, this claim 10 will be interpreted as they are best understood.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

5. Claims 1, 7 and 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Arakawa et al. U.S. Patent 5,500,675 in view of Suda et al. U.S Patent 2001/0038418.

Referring to claim 1, the Arakawa reference discloses in Figures 2-3, an imaging apparatus comprising: an imaging device (CCD) which is constructed by arranging

photoelectric conversion elements (photosensitive region 1, see Col.4, line 45) in a two-dimensional array and dividing them into photoelectric conversion element groups (first group composed of 2n-1th pixels of **odd** ordinal numbers of lines; and second group composed of 2nth pixels of **even** ordinal numbers of lines above in the vertical direction, see Col. 5, lines 50-58), each group composed of combinations of lines spaced at specific intervals and at least partially interleaved with lines of another group, and which stores the charges (in the first accumulation region 4 and a second accumulation region 5, see Col. 4, lines 54-57) corresponding to the image of the subject formed by on the imaging surface; control means for controlling the charge storage start timing (the starting time of transferring the signal charge to the accumulation region) for said imagining device in such a manner that the photoelectric conversion elements belonging to the same photoelectric conversion element group in said imaging device start to store charges with the same timing and the photoelectric conversion elements belonging to another photoelectric conversion element group start to store charges with different timing (e.g., see Figure 3A-E, at a time point t1 is the charge storage start timing for the first pixel group starting to store charges into the first accumulation region 4; and at a time point t2 is the charge storage start timing for the second pixel group starting to store charges into the second accumulation region 5, see Col. 5, lines 49-60). However, the reference does not explicitly show the imaging device with a taking lens are assembled in a camera system including auto focuses processing circuit to drive the taking lens along the optical axis on the basis of the image signal read from each of the photoelectric conversion element groups in said imaging device.

The Suda reference discloses in Figures 1-2, an video camera system including image sensing devices (CCD 106 to 108), taking lens (101 to 105), an Auto Focus (AF) signal processing circuit (113) (See Page 3, [0058] to [0062]) and the microcomputer (114, see page 4, [0079]) can identify whether the singles is come from even-numbered lines or odd-numbers lines (this also can be considered as the image device is divided into two photoelectric conversion element groups by odd number lines and even number lines), the signals S7 and S8 are stitched by a switch (216) and applied to a high-pass filter (217). The AF processing circuit (113) can sent the focus evaluation values to microcomputer 116 of lens assembly 127 to drive taking lens to an in-focus position on the basis of the result of comparing the high-frequency components of the image signals read from each of the photoelectric conversion element groups (See Page 5 [0081] and page 6, lines [011]). The Suda reference is an evidence that one of ordinary skill in the art at the time to see more advantages the camera system including a auto focus processing circuit for control driving the taking lens to the focus sate on the basis of the image signal read from each of the photoelectric conversion element groups so that in case a different high-frequency components can be obtained easily in one picture frame and an object can be accurately focused regardless of whether the distance to object is long or short. For that reason, it would have been obvious to see the imaging device with a taking lens are assembled in a camera system including auto focuses processing circuit to drive the taking lens along the optical axis on the basis of the image signal read from each of the photoelectric conversion element groups in said imaging device disclosed by Arakawa.

Referring to claim 7, the Arakawa and Suda references discloses all subject matter as discussed with respected to same comment as with claim 1.

Referring to claim 10, the Arakawa and Suda references discloses all subject matter as discussed with respected to same comment as with claim 1, and the Suda reference discloses the AF processing circuit (113) can sent the focus evaluation values to microcomputer 116 of lens assembly 127 to drive taking lens to an in-focus position (as **specific** positions) on the basis of the result of comparing the high-frequency components of the image signals read from each of the photoelectric conversion element groups (See Page 5 [0081] and page 6, lines [011]).

Allowable Subject Matter

6. Claims 2-6, 8-9 and 11-12 are allowed.

Conclusion

7. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event,

however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to **Lin Ye** whose telephone number is **(703) 305-3250**. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Wendy R Garber can be reached on (703) 305-4929.

Any response to this action should be mailed to:

Commissioner of Patents and Trademarks

Washington, DC. 20231

Or faxed to:

(703) 872-9306

Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal drive, Arlington, VA., Sixth Floor (Receptionist).

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Technology Center 2600 Customer Service Office whose telephone number is (703) 306-0377.

Lin Ye
May 4, 2004

WENDY R. GARBER
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600